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Addis Ababa, Ethiopia, 19-24 March 1984

Seventh Conference of African Ministers
of Industry
Addis Ababa, Ethiopia, 26-28 March 1984

LC/NAIROB

PROGRAMME OF ACTIVITIES TO BE UNDERTAKEN DURING THE IMPLEMENTATION PHASE OF IDDA, 1985-1990*

(Agenda item No.6)

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* This document has not been formally edited.

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7TH MEETING OF THE CONFERENCE OF AFRICAN MINISTERS OF INDUSTRY
(19-28 March 1984)

Programme of Activities to be undertaken during the Implementation Phase of IDDA, 1985-1990

(Agenda item No. 6)

A. INTRODUCTION

I. Background

1. The main objective of the Industrial Development Decade for Africa is to lay a foundation for self-reliance and self-sustained industrial development in the African region, including the development of institutional mechanisms and capabilities for enlarging the range of complementarities along the lines suggested in the Lagos Plan of Action. The essence of this is that each country should adopt a strategy focussed and limited to a set of core industries appropriate to its resources and raw materials at the national level, while reserving other industries for multinational co-operation.1/

2. It was clearly understood at the time of adopting the Decade Programme by the Conference of African Ministers of Industry in 1981, that this Programme by itself could not be truly comprehensive till some action takes shape at the national level, subject to continuous review and concretization, gaining experience and acquiring new information as we move into the Decade. In this connection a document was prepared on "Guidelines for initiating action at national and subregional level" which was adopted by the Seventh Meeting of the Follow-up Committee on Industrialization in Africa in Kigali, Rwanda in March 1983.

3. The main activities proposed in the Guidelines include broadly the following: (a) establishment in each country of an Operational Focal Point (OFP) to act as national secretariat for IDDA; (b) appointment of a local expert to assist the OFP to initiate action; (c) establishment of a National Co-ordinating Committee (NCC) and Subregional Co-ordinating Committee; and (d) the organization of national and subregional workshops under the auspices of the respective Committees for preparation of the Decade programmes. It is assumed that these activities will have been completed by the end of 1984.

B. REVIEW OF DECISIONS OF MEMBER STATES

I. Summary of Key Points of the Industry Chapter of the LPA2/

4. In the Lagos Plan of Action (LPA) it is emphasized that the integrated socio-economic development of the region, hinge upon the establishment of an industrial base designed to meet the interests of the countries and strengthened by complementarities at the subregional and regional levels. In this connexion a foundation would be laid for the phased development of the following basic industries: food and agro-industries, building industries, metallurgical industries, mechanical industries, electrical and electronic industries, chemical industries, forest industries, and energy industry.

5. The requirements for the achievement of these objectives include the designing of national industrialization policies, the development of human resources, the development of technological capabilities, the establishment of appropriate industrial institutions, the determination of the role of private, semi-public and public enterprises as instruments for the implementation of the Lagos Plan of Action, and the effective development of small- and medium-scale industries based on local resources, labour and technologies.

1/ See: Programme for the Industrial Development Decade for Africa (IDDA), Foreword.

2/ See also: A Programme for the Industrial Development Decade for Africa (IDDA), Chapter III, paras 7-12.

6. The LPA attaches particular weight to the intensification of intra-African industrial co-operation as an instrument for self-reliance and accelerated industrial development. Co-operation with other regions should also be mutually advantageous and based on respect for the fundamental interests of the continent. Furthermore, the international agencies should adjust their programmes to the needs of the region with a view to playing an effective role in the industrial development of Africa.

II. Summary of Decisions taken at Kigali Meeting 3/

7. The seventh meeting of the Follow-up Committee (of the Whole) on Industrialization in Africa, which was held in Kigali, Rwanda, from 16 to 19 March 1983, was convened specifically for the purpose of reviewing the progress made in the implementation of the IDDA and to decide on priority actions and modalities for implementing the first phase of the programme at national and multinational levels. These decisions were subsequently adopted by the Nineth meeting of the ECA Conference of Ministers in Addis Ababa, 27 April - 3 May 1983. The following indicate briefly the crucial agreed conclusions of the meeting as reflected in its report: 4/

(a) that high priority should be given to core industrial projects 5/, identified or to be identified and included in national or multinational industrial programme, through the preparation for and holding of national and subregional workshops/meetings, and that provision should be made for increasing resources allocated to such projects;

(b) that member States should concentrate resources on core engineering industries and, at least, one resource-based core branch of industry;

(c) that action should be taken to improve national capabilities for project formulation and implementation relating to the industrial programme, particularly the core industries;

(d) that member States should submit (well prepared) priority projects to the African Development Bank (ADB) for financing, out of the $1 billion earmarked by the Bank as a minimum contribution set aside for industrial investment in Africa during 1982-1986 period;

(e) that African countries should lmake preparations for the Fourth General Conference of UNIDO, since the issues to be discussed there were of critical importance to the industrial development process in Africa, in general, and to the implementation of the Industrial Development Decade for Africa (IDDA) in particular.

8. The Follow-up Committee meeting approved two kinds of core industries, namely, the engineering core industries and the resource-based core industries, as described in the "Guidelines for initiating priority actions at the national and subregional levels for the implementation of IDDA" and its Addendum as well as in the document entitled: The Industrial Development Decade for Africa (concepts, objectives, priorities and approaches and activities during the preparatory phase 1982-1984).

3/ Seventh Meeting of the Follow-up Committee (of the Whole) for Industrialization in Africa, Kigali, Rwanda, 16-19 March 1984.

4/ For details see: Report, (E/ECA/INR/3) or (E/ECA/CM.9/27), Part II

5/ See Section C.II of this report on the criteria for selection of national and multinational core projects.

9. Effective initiation of self-sustaining industrialization process in Africa remains the main limited objective. As implied by the core concept adopted at Kigali, this underlines the necessity to refrain from diffusion of limited resources in wider-ranging product groups with consequential insignificant impact on development, minimal value-added, and external dependence syndrome. All of the above limiting conditions dectate the necessity for choice of limited product groups/projects for special concentration and focus of resources and efforts which can guarantee attainment of some excellence thus leading to price/quality competitiveness and maximum value-added per unit of output.

III. Necessity for limiting the Objectives to be achieved during the Industrial Development Decade

10. Experience in Africa already indicate that the first consideration for limiting the objectives to be achieved is to look into the potential demand in the agricultural/rural sector, both for industrial inputs and industrial consumer goods. The second consideration is the critical role of transport and communications, both for development of agriculture itself and for integrated development of industry.

11. The subregional and regional dimension would need also to be examined with respect to (i) multinational complementarity in raw materials and other factor inputs; and to (ii) trade within subregions in industrial raw materials and final products.

12. Need for foreign exchange earnings on the one hand and the unfavourable terms of trade and rising debt burden on the other also tend to limit the objectives to be achieved. Tariff and non-tariff barriers in the advanced market economies limit rapid expansion of production, both qualitatively and quantitatively to low value-added types product range. Product groups whose demand is both global and dynamic, expansion of domestic production in any African country will depend on price and quality competitiveness and market and distribution efficiency.

C. ACTION TOWARDS FORMULATION OF INDUSTRIAL PROMOTION PROGRAMME, 1985-1990

I. Formulation of Criteria for selection of National and Multinational Industrial Core Projects

13. The Joint ECA/OAU/UNIDO Inter-Secretariat Committee on the Implementation of the Programme for the Industrial Development Decade for Africa (IDDA) has, since the seventh meeting of the Follow-up Committee, held several meetings at which they have formulated criteria for selection of industrial core projects at national and multinational level. The criteria are designed to provide some general principles which African countries should apply while taking into account also their own specific requirements for industrial projects. The criteria were sent to all member States to assist them in identifying and formulating their countries' industrial core programmes. In case of priority projects of a multinational nature, the Governments were requested to forward such projects to ECA and UNIDO for compilation and submission to the IGOs.

(a) Criteria for the selection of industrial core projects at a national level

14. It is expected that during the Decade the African countries will initiate a good number of industrial core projects based on priority product groups such as: iron and steel; copper; aluminium; agricultural tools, implements and machinery; transport equipment; fertilizers; pesticides; pharmaceuticals; cement; food; and wood products.

15. The general criteria for selecting national industrial core projects set out below are intended as a guide for African countries when developing sets of their own criteria.

1. National resource-based industries

16. The project:

(i) Utilizes local natural resources (raw materials and energy) for primary and secondary processing;

(ii) Meets domestic demand and/or offers export potential;

(iii) Offers clear scope for the integrated development of an industrial branch or subsector;

(iv) Promotes linkage with other national economic activities, possibly also within the subregion;

(v) Offers scope for development of appropriate technology, including traditional technologies;

(vi) Results in rehabilitation, rationalization, up-grading and diversification of production units, wherever practical;

(vii) Produces intermediates and parts, components and accessories for existing and/or planned industries;

(viii) Offers opportunities for employment and training of local manpower;

(ix) Replaces, whenever practical, synthetic materials by natural materials, particularly those that are renewable;

(x) Contributes to the attainment of self-sufficiency in food, in particular, and to rural development in general;

(xi) Provides multiplier effects which promote not only national but also subregional integration.

17. A major feature of the resource-based products is that they are relatively labour-intensive. They are also among the highly protected products in the developed countries due to their employment content. Some of the possible areas, might for example, include the following: processed foods; leather products; wood based-products; textiles, clothing and related products; and pulp and paper products.

2. National engineering-based industries

18. The project:

(i) Meets the repair and maintenance requirements of industry and other economic activities;

(ii) Performs primary and secondary metal transformation such as metal castings, hardware, fixtures and fittings;

(iii) Produces parts and components for the manufacture of equipment and machinery for food and agricultural production and processing, transport and communications, as well as energy generation and transmission;

(iv) Develops basic support facilities such as foundries, forges, heat treatment, machine shop, tool room, metal fabrication and metal casting and product testing;

(v) Provides linkage to and fills production gaps in the engineering sub-sector and support services, such as product, machinery and plant design and industrial engineering;

(vi) Manufactures field-tested designs and prototypes, thereby ensuring the commercialization of R&D results;

(vii) Reduces the country's reliance on external industrial factor inputs (spare parts, components, accessories, etc.);

(viii) Contributes to the training of operatives.

19. Each country should, as a matter of urgency, develop some engineering industries which, in an industrial regime, are equivalent to "seeds". These industries consist of plants and equipment which are elaborated further as follows: (i) conventional and special machine tools and metal-working equipment designed to manufacture parts and components for various products; (ii) foundry facilities (ferrous and non-ferrous) for manufacture of shape castings required for final machining for production of different products; (iii) forging facilities for manufacture of formed shapes; (iv) heat treatment facilities for hardening and tempering of parts and components; (v) machine shops for manufacturing a wide range of parts and components on mass and batch scales production required for assembly and sub-assembly; and metal-coating facilities for nickel-chrome plating, phosphating, etc..

(b). Criteria for selecting multinational/subregional industrial core projects

20. For an industrial project to qualify as a multinational/subregional core project, it should meet all basic requirements in group 1 and one or more additional requirements in group 2.

1. Basic requirements

21. The project:

(i) provides inputs into the priority sectors selected in the Lagos Plan of Action and the Final Act of Lagos, i.e. food, transport and communications and energy;

(ii) provides effective integration and linkages with other industrial and economic activities and infrastructures in the subregion;

(iii) utilizes and upgrades, to the maximum extent possible, African natural resources (raw materials and energy) so as to benefit first the subregion, secondly other African countries and thirdly non-African countries;

(iv) produces intermediates for further processing or fabricating in an increasing number of established or planned industries or engineering goods, particularly those related to food production and processing, building materials, textiles, energy, transport and mining;

(v) caters, first and foremost, directly or indirectly, to the basic needs of the peoples in the subregion and, if required, in other African countries;

(vi) involves (a) economies of scale, (b) complex technology or upgrading of technology, (c) large investment and (d) market(s) beyond the reach of individual countries in the subregion;

(vii) offers scope for co-operation, especially among the African countries, in long-term supply/purchase arrangements for raw materials, intermediates and final products; subcontracting; barter; equity share holding etc.;

(viii) contributes to reducing the region's heavy reliance on external factor inputs.

2. Additional requirements

22. The project:

(i) offers comparative advantage(s) over similar projects - actual or potential - in other groups of countries (African and non-African), particularly in respect of raw materials, energy and the infrastructure required;

(ii) complements related project(s) or existing production unit(s) in the subregion;

(iii) earns foreign exchange through the export of its products, including upgrading of raw materials;

(iv) results in rehabilitation and rationalization of existing production unit(s);

(v) replaces, whenever practical, synthetic materials by natural materials, particularly those that are renewable.

23. The bulk of the activities concerning selection of subregional core projects should be completed during the preparatory phase, 1982-1984, so that the implementation phase for such projects could start in earnest by 1985. On the basis of the criteria, possible projects will be promoted, including also those based on the following industrial branches: (i) engineering (e.g. agricultural, transport and communications and energy generating and transmitting equipment). These projects, at multinational level, complemented by national engineering core projects described under C.I(a) above, serve also to integrate projects in: (ii) basic metals (e.g. iron and steel including re-rolling mills and foundries based on subregional, regional or imported billets, iron for castings or sponge iron etc.; aluminium and copper); (iii) chemicals (e.g. basic intermediates, such as ammonia, phosphoric acid and potash for fertilizer production; active ingredients for pesticides and for pharmaceuticals); (iv) building materials (e.g. cement; wood-based and clay products; sheet glass; etc.); (v) energy-related projects (e.g. coking coal and hydro-power).

II. Subregional Meetings of Experts on IDDA

24. A series of two subregional expert group meetings have been convened jointly by the OAU, ECA and UNIDO aimed at promoting intra-African industrial co-operation. The meeting for Eastern and Southern African subregion was held in Addis Ababa (Ethiopia) from 22 to 26 November 1983 and that for Western African subregion in Abidjan (Ivory Coast) from 12 to 16 December 1983. The meetings focussed on formulation and implementation of subregional industrial promotion programmes for the Industrial Development Decade for Africa. The experts agreed on areas in which projects can be developed and on initial packages of selected multinational industrial core projects for promotion, including a plan of activities for implementing them. 6/

25. Consensus has been reached at these meetings that the subregional integrated industrial promotion programme should consist of core industrial subsectors, all mainly related to food and agriculture, providing such inputs as fertilizers, pesticides, agricultural implements and equipment, equipment for transportation, processing and storage of agricultural produce and food, power-generating and transmission equipment, as well as iron and steel, and copper.

26. Similar subregional meetings are planned to be organized for Central and Nort Africa subregions during the course of 1984.

III. Profiles on Core Projects already identified by the Member States in the above Project Areas

27. The initial integrated subregional industrial promotion programmes presented in this section are derived from following sources: national projects requiring multi-national co-operation submitted by countries in the subregions to UNIDO and ECA, and the subregional projects developed within the framework of the existing IGOs, the MULPOCs or the UNIDO investment promotion services. Following a careful and thorough review of those projects, project proposals and project concepts, core projects were selected to constitute the initial integrated programmes. The projects were selected on basis of the criteria contained under C.I(b) above, all of them are in accordance with the priorities of the subregions, the Lagos Plan of Action and IDDA Programme.

28. It was felt at the subregional meetings held that the selection of projects was a continuous process, regardless of the stage of development of each project identified for multinational co-operation. Following are the profiles on projects already identified within the stated framework:

6/ See individual reports of the meetings for each subregion.

SUMMARY OF MULTINATIONAL PROJECTS RECOMMENDED FOR PROMOTION AND IMPLEMENTATION BY THE SUBREGIONAL MEETINGS ON THE PROMOTION OF INTRA-AFRICAN INDUSTRIAL CO-OPERATION WITHIN THE FRAMEWORK OF THE INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA AND THOSE SUBMITTED BY MEMBER STATES OF CENTRAL AFRICA AND THEIR IGOs

1. Metals Subsector

Table 1.1 Eastern and Southern Africa Subregion

Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (mill. US$)	Participation sought/desired
1. Rehabilitation of existing iron and steel plants	1	Zimbabwe[a]	Conceptual	520[b]	405	to be negotiated
	2	Uganda[c]	"	100	253	"
2. Electric arc Furnace Furnace Plants and Re-rolling mills	--	-	-	-	--	-
3. Direct Reduction Plants	4	Angola[d]	Conceptual	n.a	n.a	to be negotiated
	5	Mozambique[d]	"	n.a	n.a	"
	6	Madagascar	"	n.a	n.a	"
4. Integrated steel mills	3	Kenya	Feasibility study	420	890	"
5. Iron and steel Foundries	7	Kenya	Conceptual	n.a	n.a	"
6. Non-Ferrous metals industry	-	-	--	-	-	-

a/ Upgrading and diversification of the ZISCOSTEEL plant in order to meet the present subregional requirements for iron and steel products.

b/ Actual capacity of ZISCOSTEEL is 1.00 million tons. The 520,000 tons/year is h the output suggested for the markets of the subregion.

c/ National project with possibilities of Multinational Co-operation.

d/ Based on information collected by the secretariats of ECA and UNIDO.

Table 1.2 West Africa Subregion

Project category	Project	Promoter	Status	Capacity (1000 t/y)	Investment (mill.US$)	Participation sought/desired
1. Rehabilitation of existing iron and steel plants	-	-	-	-	-	-
2. Electric arc Furnace Plants and Re-rolling mills	3, 4,[a]	Niamey	Conceptual	n.a	n.a	to be negotiated
3. Direct Reduction Plants	1, 2[a] 5	Mano River Union	Conceptual	n.a	n.a	"
4. Integrated steel mills	9 & 6	Niamey MULROC	"	n.a	n.a	"
5. Iron and steel Foundries	9	Niamey	"	n.a	n.a	"
6. Non-Ferrous metals industry	-	-	-	-	-	-

Table 1.3 Central Africa Subregion[b]

Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (mill.US$	Participation sought/desired
1. Rehabilitation of existing iron and steel plants	-	Zaire[c]	Conceptual	250	n.a	to be negotiated
2. Electric arc Furnace Plants and Re-rolling mills	-	-	-	-	-	-
3. Direct Reduction Plants	-	-	-	-	-	-
4. Integrated steel mills	-	-	-	-	-	-
5. Iron and steel Foundries	-	-	-	-	-	-
6. Non-Ferrous metals industry	10,11,[a] 12,13	UDEAC Cameroon Rwanda[d]	Conceptual	n.a	n.a	To be negotiated

a/ These projects have been reformulated as one project.

b/ Based on information collected by the secretariats of ECA and UNIDO.

c/ Rehabilitation of the Maluku Steel Plant

d/ Covering tin and aluminium industries. The Rwanda Ferro-alloy and Rolling Mill projects are national

2. Engineering Subsector

Table 2.1 Eastern and Southern Africa Subregion

Project category	Project No.	Eventual Promoters	Status	Capacity	Investment (mill.US$)	Participation sought/desired
1. Manufacture of diesel engines for tractors, trucks, lorries and buses	8	Zimbabwe or Kenya	Conceptual	30,000 units pa on one shift 90,000 on 3 shifts	80	(a) 50% basic investment by equity share holding and balance by loans; (b) less than 50% shares to be given to partners; (c) supply arrange- arrangements for raw materials; (d) supply/purchase arrangements for ancillary parts
2. Manufacture of diesel-engine mounted chassis for lorries, trucks and buses	9	Ethiopia Mozambique Tanzania	Conceptual	63,000 units pa working on 3 shifts at the 3 locations	20 for each plant	Same as above
3. Manufacture of low cost, standard multipurpose vehicles	10	Botswana Madagascar Mozambique Uganda Zambia	Conceptual	500,000 scooter engines 300,000 3-wheel chassis 200,000 moped engines/ transmission	82.5 for the 5 plants	Same as above
4. Manufacture of 4-wheel tractors	11	Zimbabwe	Conceptual	7000 on one shift 21,000 on 3 shifts	20	Same as above

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Project category	Project No.	Eventual Promoters	Status	Capacity	Investment (mill.US$)	Participation sought/desired
5. Manufacture of irrigation equipment	12	INDECO (Zambia)	Feasibility study	3677 T/yr	19.5	Participation sought mainly in terms of financial and technological inputs
6. Re-rolling mills for sections and bars for high tension electricity transmission	13	Zimbabwe	Conceptual	50,000 tons pa (1985) 100,000 tons pa (2000)	100	(a) Joint participation; (b) Purchase arrangements for products
7. Fabrication of copper/aluminium cables and conductors	14 a/	Zambia	Conceptual	50,000 tons pa (1990) 125,000 tons pa (2000)	25	(a) Joint participation; (b) Purchase arrangements for products
8. Manufacture of transformers	15	INDECO (Zambia)	Pre-feasibility study	1500 distr. trans.	18.84	Same as above (a), (b)
9. Manufacture of railway wagons	-	-	-	-	-	-
10. Manufacture of agricultural tools and implements	-	-	-	-	-	-
11. Manufacture of agricultural implements and equipment	-	-	-	-	-	-
12. Manufacture of watches and clocks	-	-	-	-	-	-
13. Manufacture of crown cooks	-	-	-	-	-	-

a/ Fabrication of copper cables and conductors

Table 2.2 West Africa Subregion

Project category	Project No.	Eventual Promoters	Status	Capacity	Investment (mill.US$)	Participation sought/desired
1. Manufacture of diesel engines for tractors, trucks, lorries and buses	15	ECOWAS	Conceptual	100,000 units pa	140	(a) 50% basic investment by equity share holding and balance by loans; (b) supply/purchase arrangements for ancillary parts
2. Manufacture of diesel-engine mounted chassis for lorries, trucks and buses	16	ECOWAS	Conceptual	75,000 units pa	120	Same as above
3. Manufacture of low cost, standard multi-purpose vehicles	17	ECOWAS	Conceptual	250,000 scooter engines 150,000 scooter chassis		Same as above
4. Manufacture of [illegible] tractors	10	ECOWAS	Conceptual	15,000	70	Same as above
5. Manufacture of irrigation equipment	12[a/]	Mano River Union	Conceptual	100,000	50[b/]	-
6. Re-rolling mills for sections and bars for high tension electricity transmission	20	ECOWAS	Conceptual	50,000 tons pa	56.5	-
7. Fabrication of copper/aluminium cables and conductors	18	ECOWAS	Conceptual	45,000 tons pa	24	-

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a/ Manufacture of diesel engines for irrigation pumps and generators

b/ This figure includes investments at national levels for pumps and generators assembly plants.

Project category	Project No.	Eventual Promoters	Status	Capacity	Investment (mill.US$)	Participation sought/desired
8. Manufacture of transformers	19	ECOWAS	Conceptual	14,000 units pa	40	-
9. Manufacture of railway wagons	14	CEAO	Feasibility study	450 wagons pa		Togo and Benin interested in the project
10. Manufacture of agricultural tools and implements	11	Mano-River Union	Pre-feasibility study	1.5 million hand-tools 3,700 agricultural machinery	n.a	-
11. Manufacture of agricultural implements and equipment	13[c/]	Nigeria	n.a	n.a	n.a	n.a
12. Manufacture of watches and clocks	-	-	-	-	-	-
13. Manufacture of crown cooks	-	-	-	-	-	-

c/ IDDA subcommittee has recommended to include an additional project submitted by Mano River Union relating to the manufacture of small mobile palm oil mills. ECOWAS in association with ARCEDEM and ARCT were requested to carry out in depth studies taking in account the proposal number 10 (manufacture of four-wheeled tractors).

Table 2.3 Central Africa Subregion

Project category	Project No.	Eventual Promoters	Status	Capacity	Investment (mill.US$)	Participation sought/desired
1. Manufacture of diesel engines for tractors, trucks, lorries and buses	-	-	-	-	-	-
2. Manufacture of diesel-engine mounted chassis for lorries, trucks and buses	-	-	-	-	-	-
3. Manufacture of low cost, standard multi-purpose vehicles	-	-	-	-	-	-
4. Manufacture of 4-wheel tractors						
5. Manufacture of irrigation equipment	-	-	-	-	-	-
6. Re-rolling mills for sections and bars for high tension electricity transmission	38[a/]	Rwanda	Conceptual	n.a	n.a	n.a
7. Fabrication of copper/aluminium cables and conductors	-	-	-	-	-	-
8. Manufacture of transformers	-	-	-	-	-	-
9. Manufacture of railway wagons	-	-	-	-	-	-
10. Manufacture of agricultural tools and implements	28	CEPGL	Conceptual	1000 tons pa	n.a	n.a

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a/ Manufacture of electric lamps, insulators and electric towers.

Project category	Project	Eventual Promoters	Status	Capacity	Investment (mill.US$)	Participation sought/desired
11. Manufacture of agricultural implements and equipment	-	-	-	-	-	-
12. Manufacture of watches and clocks		UDEAC	existing	100,000 b/	n.a	n.a
13. Manufacture of crown corks	30	CEPGL	Conceptual	n.a a/	n.a	n.a

b/ This project is at present at the small-scale artisanal stage.

3. Chemicals Subsector

Table 3.1 Eastern and Southern Africa Subregion

Project category	Project	Promoter	Status	Capacity (1000 t/y)	Investment (mill.US$)	Participation sought/desired
1. Potash	16	Ethiopia	Feasibility study completed	1.5m	300	Equity Participation of other member States and market guarantee
2. Ammonia	17	Tanzania	Awaiting investment	Ammonia 1,150 ton/day Urea 1,750 t/d	450	Equity participation from other member States
3. Phosphate	18	Uganda	Study undertaken to determine the commercial financial and economic viability of the project	210,000 of concentrates 380,000 of SSP	84	Involving other member States in technical services and marketing
	19	Zimbabwe	Existing plant + expansion of plant	Present 160,000 additional sulphuric acid 200,000	Additional sulphur-sulphuric acid 48	Zimbabwe need markets to expand its phosphate fertilizer industry
	20	Kenya	Project initiated ten years ago, but never implemented despite orders for equipment owing to problems encountered	Information not available	43.3 (1982 prices)	Participation by countries outside the subregion is sought in respect of (i) License/technology know how (ii) long-term supply/purchase arrangement (iii) managerial and technical training and (iv) services/management

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Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (mill.US$)	Participation sought/desired
4. Pharmaceutical	-	-	-	-	-	-
5. Pesticide	-	-	-	-	-	-
6. Petro-chemicals	-	-	-	-	-	-
7. Basic chemicals	-	-	-	-	-	-

Table 3.2 West Africa Subregion

Project category	Project No.	Promoter	Status	Capacity (100 t/y)	Investment (Mill.US$)	Participation sought/ desired
1. Potash	-	-	-	-	-	-
2. Ammonia	23	Based on a request of the Sixth meeting of the Council of Ministers of the Niamey based MULROC	Preliminary study completed	Ammonia 1,000 t/d Urea 1,500 t/d	500	Subregional project - Equity participation
3. Phosphate	22	Togo	Preliminary study completed feasibility study is nearing completion	1,000 t/d	70 bill. CFA	Equity participation of member States
	none	Liptako Gourma Authority	Conceptual stage	155,000	14.1	Project adopted by the Council of Ministers of the Liptako Gourma Authority
4. Pharmaceutical	24	Sierra Leone	Preliminary study	-	21.5	Project backed by MRU. UNIDO will conduct a market survey which will include the whole subregion
	25	Nigeria	Feasibility study available	-	63.1N	Same as above
	Add.4	Guinea	Feasibility study available	22.5	15	Survey which will include the whole subregion

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Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (Mill.US$)	Participation sought/ desired
5. Pesticide	26	Upper Volta	Feasibility study available	liquid 1 m.litres powder 2.5	647 CFA	Subregional character. Niger will confirm its interest
		Niger	Feasibility study almost completed	Not available	n.a	Countries of the sub-region has been invited to participate
6. Petro-chemicals	-	-	-	-	-	-
7. Basic chemicals*	Add.3	Mano River Union	Full scale investigation undertaken	n.a	n.a	Italian Fin SALTEC is also a potential partner

* Salt/Soda

Table 3.3 Central Africa Subregion[a/]

Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (Mill.US$)	Participation sought/ desired
1. Potash	14	UDEAC	-	-	-	Subregional character
2. Ammonia	16	CEPGL	Conceptual stage	UREA 44	65	Subregional character
3. Phosphate	-	-	-	-	-	-
4. Pharmaceutical	23	UDEAC	Feasibility study (Gabon)	-	-	Subregional character
	25	CEPGL	Pre-feasibility study	-	105	-
5. Pesticide	41	Rwanda	Conceptual stage	-	-	Subregional character
6. Petro-chemicals	15	Gabon	Pre-feasibility	-	-	Subregional character
7. Basic chemicals	17	CEPGL*	Pre-feasibility study	n.a	n.a	Subregional character
	18	CEPGL**	Pre-feasibility study	n.a	n.a	Subregional character
	19	CEPGL***	n.a	n.a	n.a	Subregional character

a/ Based on information collected by the Secretariats of ECA and UNIDO.

* Production of methanol,

** Calcium carbide,

*** Calcium cyanamid.

SUMMARY OF MULTINATIONAL PROJECTS RECOMMENDED FOR PROMOTION AND IMPLEMENTATION BY THE SUBREGIONAL MEETINGS ON THE PROMOTION OF INTRA AFRICAN INDUSTRIAL CO-OPERATION WITHIN THE FRAMEWORK OF THE INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA AND THOSE SUBMITTED BY MEMBER STATES OF CENTRAL AFRICA AND THEIR IGOs

4. Food Industry

Table 4.1 Eastern and Southern Africa Subregion

Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (mill.US$)	Participation/ sought/ desired
1. Transformation of Research Station into a subregional R & D Centre for Cereals, Root crops and their processing	S1	Uganda	A project document is available for Serere Research Station	-	1.095	-
2. Processing of Fish and other seafoods	S7	ECA/ UNIDO/ OAU	Project idea	-	0.040	-
3. Integrated complex for poultry production	-	-	-	-	-	-
4. Food processing plant: to rehabilitate plant manufacturing agro-products such as chocolate and expand its programme to include the processing of oranges and other fruits	-	-	-	-	-	-
5. Fruit processing plant: to rehabilitate a fruit processing (with obsolete equipment) and to increase the processing and product range	-	-	-	-	-	-
6. Development of Meat and allied industries	-	-	-	-	-	-
7. Processing of fish and other seafoods	-	-	-	-	-	-
8. Development of the cotton textile industry	-	-	-	-	-	-
9. Cereals Storage	-	-	-	-	-	-
10. Pilots processing plants of Millet and Sorghum	-	-	-	-	-	-

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Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (mill.US$)	Participation/ Sought/ Desired
11. Factory for the manufacture of village mills	-	-	-	-	-	-
12. Production of mobile Mini Palm-oil mills	-	-	-	-	-	-
13. Paper pulp and paper board factory	-	-	-	-	-	-
14. Restauration et extension du complexe sucrier de caxito	-	-	-	-	-	-
15. Production d'alcool (Rhum) à partir du complexe sucrier	-	-	-	-	-	-
16. Rehabilitation et extension d'une usine de levure	-	-	-	-	-	-
17. Production de café soluble	-	-	-	-	-	-
18. Etude de Prefaisabilité	-	-	-	-	-	-
19. Industrie du Bois	-	-	-	-	-	-
20. Industrie de produits laitiers	-	-	-	-	-	-
21. Sucrerie du Congo	-	-	-	-	-	-

Table 4.2 West Africa Subregion

Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (mill.US$)	Participation sought/desired
1. Transformation of Research Station into a subregional R & D Centre for Cereals, Root crops and their processing	-	-	-	-	-	-
2. Processing of Fish and other seafoods	-	-	-	-	-	-
3. Integrated complex for poultry production	27	Liberia	Feasibility study available	1/	16	Equity sharing loans, technology, know-how and management
4. Food processing plant: to rehabilitate plant manufacturing agro-products such as chocolate and expand its programme to include the processing of oranges and other fruits	28	Guinea	Pre-feasibility study is available	7.2	25	Equity sharing and loans
5. Fruit processing plant: to rehabilitate a fruit processing (wtih obsolete equipment) and to increase the processing and product range	29	Guinea	Pre-feasibility study is available	-	4.9	Equity sharing, loans, technological know-how, external market
6. Development of Meat and allied industries	S11	ECOWAS	Project proposal has been prepared by UNIDO	-	3	-
7. Processing of fish and other seafoods	S12	ECA/UNIDO OAU		-	0.040	-
8. Development of the cotton textile industry	S13	ECA/UNIDO OAU	Project idea	-	0.040	-

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1/ 3.856 tons poultry; over 5.4 millions eggs; 1.959 tons poultry feed; 1.964 tons organic fertilizer; and 0.480 tons by-products.

Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (mill.US$)	Participation sought/desired
9. Cereals Storage	-	CILLS/FAO	An original study by FAO is available	120 of national stocks and 152 of subregional stocks	228 (Dec. 1980)	-
10. Pilots processing plants of Millet and Sorghum	-	Niger/ Nigeria Joint Co-operation Commission	Feasibility studies completed in Nov. 1983 by UNIDO with UNDP finance	3-6 of flour	2	-
11. Factory for the manufacture of village mills	-	Niger/ Nigeria Joint Co-operation Commission	Pre-feasibility studies completed by UNIDO with UNDP finance	5,000 mills. a year	2.5 (1980)	-
12. Production of mobile Mini Palm-oil mills	-	Mano-River Union	Project idea	50-80 mills. a year	5-8	Co-operation in designing the units
13. Paper pulp and paper board factory	-	Ivory Coast	Conceptual level	50 to 100	-	Search for technical and financial partners
14. Restauration et extension du complexe sucrier de caxit.	-	-	-	-	-	-
15. Production d'alcool (Rhum) à partir du complexe sucrier	-	-	-	-	-	-
16. Rehabilitation et extension d'une usine de levure	-	-	-	-	-	-

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Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (mill.US$)	Participation sought/desired
17. Production de café soluble	-	-	-	-	-	-
18. Etude de Prefaisabilité	-	-	-	-	-	-
19. Industrie du Bois	-	-	-	-	-	-
20. Industrie de produits laitiers	-	-	-	-	-	-
21. Sucrerie du Congo	-	-	-	-	-	-

Table 4.3 Central Africa Subregion

Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (mill.US$)	Participation sought/desired
1. Transformation of Research Station into a subregional R & D Centre for Cereals, Root crops and their processing	-	-	-	-	-	-
2. Processing of Fish land other seafoods seafoods	-	-	-	-	-	-
3. Integrated complex for poultry production	-	-	-	-	-	-
4. Food processing plant: to rehabilitate plant manufacturing agro-products such as chocolate and expand its programme to include the processing of oranges and other fruits	-	-	-	-	-	-
5. Fruit processing plant: to re-habilitate a fruit processing (with obsolete equipment) and to increase the processing and product range	-	-	-	-	-	-
6. Development of Meat and allied industries	-	-	-	-	-	-
7. Processing of fish and other seafoods	-	-	-	-	-	-
8. Development of the cotton textile industry	-	-	-	-	-	-
9. Cereals storage	-	-	-	-	-	-
10. Pilots processing plants of m Millet and Sorghum	-	-	-	-	-	-
11. Factory for the manufacture of village mills	-	-	-	-	-	-
12. Production of mobile Mini Palm-oil mills	-	-	-	-	-	-

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Project category	Project No.	Promoter	Status	Capacity (1000 t/y)	Investment (mill.US$)	Participation sought/desired
13. Paper pulp and paper board factory	-	-	-	-	-	-
14. Restauration et extension du complexe sucrier de cazit	1	Angola	Rehabilitation et extension	-	106	Exportation du sucre vers les pays voisins
15. Production d'alcool (Rhume) à partir d'un complexe sucrier	2	Angola	Reconversion d'un complexe sucrier pour la production de rhum	-	34	Exportation du rhum vers les pays voisins et à l'étranger
16. Rehabilitation et extension d'une usine de levure	3	Angola	Rehabilitation et extension	-	1.3	Exportation de levure dans les pays voisins
17. Production de café soluble	5	Burundi	Niveau conceptuel	-	-	Exportation de café soluble vers les pays voisins
18. Etude de Prefaisabilité	24	CEPGL/ PNUD	Niveau conceptuel	-	0.1	Co-opération entre pays de la CEPGL et du bassin de la KAGERA
19. Industrie du Bois	27	CEPGL	Etude de pré-faisabilité en cours	-	-	Co-opération entre pays de la CEPGL
20. Industries de produits laitiers	39	CEPGL	Idée de projet	-	-	Co-opération entre pays de la CEPGL
21. Sucrerie du Congo	37	Congo	Idée de projet	-	-	Recherche de partenaires technique et financier et exportation du sucre vers les pays voisins

D. MODALITIES FOR INVESTMENT PROMOTION AND IMPLEMENTATION OF THE INTEGRATED INDUSTRIAL PROGRAMMES

I. Promotion of National Industrial and Investment Programmes

29. In respect of the national industrial core programme each country should undertake at least the following activities towards investment promotion:

(a) appraisal of the local entrepreneurial resources and establishing effective communication with industrial private and public entrepreneurs, in terms of support services and institutions, and incentives;

(b) strengthening of corporate structures and capacity for integrated project identification, preparation and implementation;

(c) developing the requisite managerial and technical skills as well as establishing national physical infrastructure.

II. Promotion of Integrated Subregional Industrial and Investment Programme

30. The identification of core projects is a continuous and permanent process, so that the subregional integrated programmes will be revised at regular intervals and adjustments made appropriate to the current needs of the subregion concerned and its level of development. Any programmes agreed on will have to be endorsed by the governments concerned in each subregion through their intergovernmental organizations. Once the list of selected priority core projects have been approved, they would form an industrial promotion programme for each subregion, including also a plan for the implementation and follow-up. Meanwhile, all the available information on subregional core projects proposed by Governments should be submitted to the heads of the three Organizations, ECA, UNIDO and OAU to be assembled with a view to selecting, on the basis of the agreed criteria, the critical core projects for submission to the subregional meetings.

31. The provision of adequate administrative machinery to sustain consultations and co-ordination is perhaps the most important institutional aspect of any multinational subregional co-operation group, since all economic co-operation depends on effective participation of all the several interests involved. Such interests do not only involve the government departments of the member States but may also require consultation and co-ordination with public corporations, private entrepreneurs, chambers of commerce and industry, manufacturers associations, research associations, banks and other groups concerned.

32. A key feature of governmental machinery within member countries of a multinational project is the establishment of a unit or a corporation at national level to co-ordinate both policy formation and the implementation of projects on multinational/subregional basis.

33. A series of steps to be taken by the countries at national and subregional levels and by the co-ordinating organizations, ECA, OAU and UNIDO are spelt out below. 7/

7/ Detailed information available in the respective documents and reports of the subregional expert meetings on IDDA already published

34. The success of the subregional programme will be determined by the actions taken at the national level and by two policies and operational mechanisms adopted by Governments. These will, at least, include:

(i) proposal, by each participating country, of a project which that country is prepared to support and include in its development plan or take commitment to do so;

(ii) strengthening or introduction of operational mechanisms (e.g. indigenous corporations, capanies, commissions) responsible for follow-up including project definitions, pre-investment studies, investment promotion, and project-related consultation with other countries in the subregions;

(iii) if designated the principal promoter, a country will assume the bulk of the responsibilities for submission of the project to financial institutions such as various national and subregional banks, the African Development Bank (ADB), Arab Bank for Economic Development of Africa (BADEA), African Industrial Development Fund (AIDF) and the World Bank.

35. All the activities at the national and subregional level during the preparation and implementation of the identified core and support projects should further the attainment of those objectives. Activities at the subregional level include:

(i) Formal endorsement of the initial integrated industrial promotion programmes by the intergovernmental organizations in the subregions, such as MULPOCs, PTA, SADCC, ECOWAS, UDEAC, and CEPGL Council of Ministers and inclusion thereof in their subregional development plans and programmes;

(ii) Initiatives taken by existing intergovernmental organizations and MULPOCs to co-ordinate, monitor and advise Governments on the selection and implementation of multinational projects as well as undertake consultations leading to investment promotion and negotiation;

(iii) Provision by those intergovernmental organizations of advice to Governments on co-operation arrangements in the areas of: industrial production and trade in industrial raw materials and products; mutual benefits or equitable treatment; joint ventures, co-production, subcontracting and joint acquisition of technology and loan finance;

(iv) Agreement among the countries in the subregion on the host country for each multinational project and on the respective roles of others such as supply of the requisite raw materials and energy; purchase of intermediate and final products; equity shareholding; etc.

(v) Involvement of African chambers of commerce and industry, or manufacturers and their associations as well as competent local consulting firms from the outset of the project, increasing their participation as the project develops 8/. Meetings of production agents should be convened within each given product group to facilitate the working out of complementarity agreements between the countries concerned.

8/ It would serve no useful purpose for African countries to identify and propose projects and then simply hand them over all to foreign investors and donors.

36. The process of financing full feasibility studies and of finally preparing suitable multinational projects for investment financing is one that will be of very great importance. It may be proper that the African Development Bank (ADB) should play a central part in this as a neutral and independent authority concerned with African development. But the financing of such technical inputs and preinvestment activities is an issue fundamentally distinct from the provision of investment finance proper and, in some senses, takes precedence over it. In the light of the programme policies outlined in this report, it is recommended that the African countries give increased practical support to the African Industrial Development Fund (AIDF) so that it can start providing for these technical services in collaboration with ADB. The roles of ADB and AIDF should be extended to providing assistance in project negotiation and investment promotion.

III. Role of Co-ordinating and other Agencies

37. The agencies and organizations of the United Nations system, in particular, UNIDO and ECA, in close co-operation with the OAU, ADB and other African organizations such as ARCT, ARCEDEM, AIHTTR, PATU and IDEP can contribute to meeting the objectives of the industrial promotion programme.

38. For the most part, these organizations would provide technical assistance, upon request, in the following areas: 9/

(a) identification of resource-based and engineering-based national and multinational core industries, in collaboration with national and intergovernmental organizations;

(b) organization of workshops and formulation of detailed integrated programmes within the framework of core industries, including activities related to raw materials, entrepreneurial and other capabilities for implementing the realigned industrial development plans within the framework of IDDA;

(c) providing information required to facilitate multinational consultations and negotiations for co-operation and investment promotion in key industries;

(d) organization of technical consultations, negotiations and investment promotion meetings in specific core subsectors, in collaboration with relevant intergovernmental and national organizations. These will include consultations and negotiations between:

(i) African countries, involving both State finance institutions and local agents of production and distribution;

(ii) African States and potential partners from other developing countries through ECDC, involving potential investors from those countries as well as financial institutions;

(iii) African States and potential investors from developed countries.

9/ See documents and reports of the subregional expert meetings on IDDA for details.

(e) formulation of modalities and programmes for creating or restructuring of industrial institutions and mechanisms for industrial consultations, negotiation, development and co-operation;

(f) preparation and appraisal of pre-investment studies, specifications, bids and contracts related to core industries.

39. In providing the above assistance, close inter-agency co-operation in the sub-regions is required so as to ensure full harmonization of the endeavours of both the United Nations organizations and the OAU to the benefit of the subregions.

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Intergovernmental Meeting of Experts of the Whole

Addis Ababa, Ethiopia, 19-24 March 1984

Seventh Conference of African Ministers of Industry

Addis Ababa, Ethiopia, 26-28 March 1984

LC/NAIROBI

PREPARATIONS FOR THE FOURTH GENERAL CONFERENCE OF UNIDO: PROPOSED FRAMEWORK FOR AFRICAN COMMON POSITION

PART TWO

Issues Arising from the Provisional Agenda Item 5: International Co-operation, Relevant National Actions Including Industrial Policies*

*This document has now been formally edited.
Jointly prepared by ECA/OAU and UNIDO.

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Background

The Follow-up Committee (of the Whole) on Industrialization in Africa, at its seventh meeting in Kigali, Rwanda, 16 to 19 March 1983, recommended that the Fourth General Conference of UNIDO should constitute one of the substantive agenda items for the seventh Conference of African Ministers of Industry which should be rescheduled to take place in March/April 1984. An Intergovernmental Meeting of Experts of the Whole, which will replace the usual Follow-up Committee meeting, should meet a number of days before the Conference in order, inter alia, to formulate concrete proposals on an African common position on the General Conference for consideration by the Conference of Ministers.

In this connexion, the Follow-up Committee further recommended that the secretariats of OAU, ECA and UNIDO should assist the Intergovernmental Meeting of Experts in the formulation of its proposals to the Conference of Ministers by preparing a comprehensive paper, consisting of two parts: part I dealing with the Industrial Development Decade for Africa; and part II dealing with each substantive agenda item of the General Conference.

For clarity of the issues involved, the two parts of the paper have been dealt with under separate covers. The contents here relate to part two, and elaborate on the African common position on each substantive sub-item of item 5 of the provisional agenda for UNIDO IV.

Prologue: Preparations for UNIDO IV

1. The fourth General Conference of UNIDO is due to be held in mid-1984; and once more regional blocs of countries are busy preparing their respective positions on issues expected to be raised at the Conference. According to the draft provisional agenda for UNIDO IV, there are nine critical areas, listed under item 5 1/ on which issues will be presented to the UNIDO Conference, namely:

(a) Accelerated development of human resources for industrial development;

(b) Strengthening of scientific and technological capacities for industrial development in developing countries;

(c) Mobilization of financial resources for industrial development;

(d) Energy and industrialization, with special emphasis on development and application of energy resources and manufacture of equipment;

(ed) World industrial restructuring and redeployment;

(f) Policies and measures for domestic industrial processing of raw materials in developing countries;

(g) Industrial policies and measures to achieve rural development and self-sufficiency in food supplies in developing countries;

(h) The least developed countries: implementation of substantial New Programme of Action;

(i) Strengtheining economic co-operation among developing countries.

2. Although this paper deals with each of the above areas individually, attempt is made to examine issues in terms of the Programme of the Industrial Development Decade for Africa (IDDA) which sets the framework and strategy for industrial development of the African countries 2/. The essence of any programme for the implementation of the Decade lies in the fact that the stimulation of the economic growth of Africa must come, first and foremost, from within, thereby initiating a process of internally-generated, self-sustaining growth through an integrated development strategy which links industry with agriculture, energy, human and physical infrastructure, trade and other sectors3/. Particular weight is attached to the intensification of intra-African co-operation as an instrument for self-reliance and accelerated industrial development.

1/ See Preparation for the Fourth General Conference of UNIDO: Note by the UNIDO Secretariat (ECA/FCIA.7/INR/WP/5).

2/ See Preparations for the Fourth General Conference of UNIDO: Proposed framework for African common position, part one.
The Industrial Decade Programme represents an initial step towards the process of disaggregation of the Lima global target in Africa into mid-term, industrial sectoral and regional targets through studies, expert meetings, the system of consultations, negotiations and other means.

3/ See A Programme for the Industrial Development Decade for Africa.

3. Co-operation with other regions of the world is seen to be essential to the attainment of the industrial development objectives of Africa with special reference to implementation of the Lagos Plan of Action and the Industrial Decade. With respect to developing regions, Africa is interested in forging truly interdependent economic and technical links as an imperative necessity and a conditio sine qua non for the achievement of any major breakthrough in North-South negotiations. The developed countries should therefore co-operate in bringing about comprehensive and substantive, not cosmetic, changes which focus not only on recovery of the industrialized countries alone, but on the establishment and management of a truly new international order which will also enable African countries to derive substantial benefits from it. Otherwise, African countries have no purpose continuing to participate in innumerable meetings supposedly in search of a new international economic order.

4. In taking action for co-operation and development within the objectives of creating international economic order, African countries must be clear on at least three major considerations: (a) prerequisites, from the African point of view, for establishing a new economic order and the consequences of failing to meet those pre-requisites; (b) the relevance and significance of the main issues which currently constitute the agenda for the negotiation of a new international economic order to the real socio-economic needs of Africa, in terms of enabling the countries to initiate a process of internally-generated, self-sustained development; (c) the issues which Africa should suggest and press for, as the main elements of the new international economic order, so that action at international level would be complementary to African action and, ideed, reinforce it. In other words, on the basis of clear comprehension of the first two considerations, Africa should declare its own agenda for negotiations for the establishment of a new international economic order.

5. These considerations are not easy to settle within a short time, but, as Africa must also prepare for the Fourth General Conference of UNIDO, during which the world community is expected to discuss issues on strategies which may lead to new global economic relationships, they are considerations which Africa must perforce give increasing attention.

(a) Accelerated development of human resources for industrial development

6. The implementation of the Lagos Plan of Action, and the IDDA programme derived from it, requires the identification and development in sufficient quantity and quality of the expertise needed for carrying out priority and core industrial programmes. This implies that programmes for development of manpower must bear a direct relationship to the envisaged focus required to implement the priority and core programmes 4/. In this connexion, African countries should intensify action also, in expanding the role of secondary and higher educational institutions so that they produce the quantity, quality and types of skills, knowledge and attitudes relevant for implementing the core programmes in particular. This should be accompanied by integrated planning and development of human resources at all levels of project formulation and implementation, with a view to nurturing the growth and survival of indigenous expertise and enterpreneurship. Attempts should be made also at a thorough analysis of the magnitude of and reasons for the brain drain and assessment of the ways and incentives to reduce it to a minimum and attracting back expertise particularly in areas of high priority.

4/ See paper on the Industrial Development Decade, on concept of core.

7. The fact of the matter is that, in the case of manpower, African countries have yet to succeed in establishing any clear link between the relevance of patterns of third level education at national level and the manpower requirements for determining the physical natural resource base; for extracting raw materials from it; and for converting such raw materials into semi-finished and finished products.

8. Intra-regional resource complementarities continue to be established on a global scale outside Africa by advanced countries and transnational corporations for their own purposes. The failure relating to establishing complementarities in natural resources, the poor performance of the region as a producer of manufactures both for its own use and for export, the rise of food problem, all attest to the extraordinary extent to which know-how policy in Africa has failed.

9. The problem of manpower for industrial development may be dealt with on two levels. First, an assessment must be made of the way in which the output and quality of secondary and post-secondary institutions relate to the manpower for natural resource exploration, evaluation, extraction and general management and corporate planning, distribution and for converting raw materials into semi-finished and finished products.5/ It is difficult to see how any large-scale development of industry can be promoted if post-secondary educational and training institutions do not produce specialists at both the higher and middle level in such fields as the science and technology of materials, engineering design, machine building, foundry and forging technology, food technology, plastic technology, corporate planning and business management with emphasis on business finance, marketing and market research, to name only a few. It may, therefore, be necessary to evaluate existing facilities for the education and training of African manpower in view of the industrial expansion at both national and multinational levels foreseen in the Decade Programme.

10. The second level at which industrial manpower should be dealt with is that of a special programme designed to meet, at least, some of the manpower needs associated with those industries which it is agreed are core industries. Within the existing business and production structures, there may be skills which are not specific to particular enterprises or industries and which may be broadened and redeployed. This would apply, for example, to general business management, business finance, marketing, production planning and even to such technological fields as foundry technology, plant assembly and electrical engineering. The competence of personnel now equipped with such skills may be improved through retraining. It has, for example, been observed that the repair and maintenance facilities of the railways and ports in Africa already provide considerable opportunities for retraining and the production of capital goods.

11. There is little doubt that other possibilities (e.g. repair and maintenance facilities for maritime and coastal shipping and even aviation) for initiating the development of capital goods industries, parts and components can be identified in in several African countries. It is, therefore, obvious that there is a need for African countries to establish or strengthen mechanisms for collection and dissemination of information on opportunities for industrial training.

5/ ECA, Revised framework of principles for the implementation of the new International Economic Order, 1976-1981-1986. (E/CN.14/ECO/90/Rev.3) 1978, para. 105.

12. The main points here are that the development of particular kinds of specialized manpower cannot be undertaken in a vacuum, and that where nuclei of training opportunities exist, they should be exploited on a national or multinational basis. Indeed, as a matter of long-term general policy, co-operative arrangements ought to be forged between post-secondary educational institutions and the producing units within the economy 6/ and among African and other countries.

13. In cases where there is no local pool of skilled Africans for retraining, arrangements can be made for Africans to be trained abroad in developing as well as developed countries where facilities exist. These arrangements may be negotiated with foreign participants in joint ventures, with bilateral aid agencies or even as part of large-scale equipment purchase agreements. All such agreements should make provision for the training of trainers and specialists and, where necessary and feasibile, for the establishment of new training institutions or the improvement of existing ones. Also technical assistance training schemes should be tailored to meet African industrialization needs.

14. Any effort to accelerate the transformation of the socio-economic system must be accompanied by a parallel and deliberate effort to develop local capabilities in, among others, business consultancy, so as to reduce dependence on external consultancy services which are intensifying the drain on foreign exchange resources and whose quality of work does not always meet required standards. African governments are spending large sums on the purchase of imported consultancy and technical services in various aspects of industry. Consultancy services procured from outside, cost not less than US$ 10,000 and average US$ 14,000 per man/month plus travel and subsistance, and such costs weigh heavily on the country's foreign exchange 7/. African countries are likely to spend very huge sums of money (estimated between US$ 5 million and 10 million a year) on all types of consultancy fees during this UN Third Development Decade 8/. In general the basic categories of industrial Consultancy accounts for 6,000 man/year every year in Africa, including: (a) investment related consultancy: (b) financial management, accountancy, auditing; (c) industrial planning, corporate planning, productivity improvement. Measures for developing consultancy and other support services at the national and multinational levels need, therefore, to be formulated, adapted and applied as soon as possible.

15. A great deal of discussion on unemployment appears to have ignored the fact that the supply and performance of entrepreneurs is of equal importance in reducing the unemployment problem as the availability of capital; and that the performance of entrepreneurs is dependent on such factors as the scope and quality of specially designed support services and institutions. Here attention is turned to the substitution of the indigenous for foreign entrepreneurs, as called for in the Lagos Plan of Action and the Decade Programme. Inachieving self-reliance and accelerated growth and diversification, an increasing burden will be placed on African entrepreneurs as well as State enterprises. Measures need to be taken to improve

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6/ Ibid, para 106.

7/ See Mission report on the proposed African Regional Centre for Consulting Engineering and Management services, working paper, 1981, paras 411-414.

8/ OAU, Lagos Plan of Action for the economic development of Africa 1980-2000, Chapter V.

the adequacy of existing mechanisms for ensuring communication between the State and the indigenous entrepreneurs. Over and above this challenge, is the much larger one of designing effective support institutions and services with a view to placing African entrepreneurs in a position where they can actually assume increasing responsibilities for promoting dynamic growth and diversification.

(b) Strengthening of scientific and technological capacities for industrial development in developing countries

16. In most African countries the impact of science and technology on economic development as a whole and for that matter on industrialization is not yet fully appreciated, as is shown by the fact that the science and technology components are not fully integrated in national plans, policies and programmes for industrial development. Because of this situation a number of countries have yet to establish relevant institutions and other machinery and/or meaningfully strengthen those that exist for the development of scientific and technological capabilities.

17. The notion of choice of industrial technology as specific and purposeful activity may be true elsewhere but not often in the African region. This situation should change however, with adoption of core or leading industrial branches in national development planning. Since it is impracticable for policy makers to consider technology for every form or area of activity to be undertaken in any plan period, it is obvious that the lack of a core or leading branches in current plans deprives technology policy of much operational meaning.

18. The internalization of the process of generating and sustaining science and technology is one of the urgent problems to be addressed in the process of implementing the Lagos Plan of Action9/. This means that Africa's emphasis should be on the development of, rather than the transfer of technology The African countries should not entertain any illusions about the likely effect of opening the African region widely to imported technology, for this is what the region has been doing so far with the result that, as in other fields, it has become technologically dependent. Africa's technological dependence manifests itself in a variety of ways. The most significant are the lack of capabilities in (a) defining development and production needs in technological terms; (b) identifying alternative forms of technology for satisfying those needs; (c) identifying competitive sources of procurement; (d) negotiating ownership or user rights; (e) organizing importation and setting up factory management operations and maintenance; (f) undertaking lateral transfer by adaptation withing existing uses or to new uses; (g) developing new forms of technology; and (h) depackaging of technology from imported equipment, machines and products 10/.

19. Thus, while technological development is a most important requirement for national development, mere transfer is not what is required to meet Africa's development objectives. While African countries no doubt need the fullest co-operation of the advanced countries to develop capabilities in the above-mentioned areas, this has to be done on guid pro quo basis, not on the basis of existing dependency relations, if Africa is to be able to determine her development priorities.

9/ OAU, Lagos Plan of Action for the economic development of Africa 1980-2000, Chapter V.

10/ Adebayo Adedeji, Africa and the new international economic order. A reassessment (revised version of a Dimond Jubilee Commemorative Lecture, National Bank of Egypt, Cairo, 19 December 1979, (Mimeo), pp.16-17).

20. Since most African countries are only beginning now to industrialize, the nature of technology required primarily for their rapid industrial development is not the sophisticated types of technology used presently in developed countries. Instead, they require, initially intermediate and appropriate types of technology that are available in other developing countries such as India, China, Brazil etc. that have undergone a similar process of industrialization. In the spirit of TCDC many such countries should be willing to share their experiences with African countries without the pattern of strings attached.

21. It will be necessary at national and multinational level to organize and develop indigenous ability for identifying and selecting, from a range of available technologies, the most appropriate technology for the core industries, as well as to develop the ability to negotiate the conditions and terms on which the technology selected is to be made available and used. As any other factor inputs, technology, as a tool for production, implies the existence of a dynamic production inset or core into which it is intended to be fitted or the intention to create such an inset or core.

22. In this connexion, there is need to undertake inventory of indigenous technologies and of facilities for the acquisition, adaptation and dissemination of imported and indigenous technologies. The African Regional Centre for Engineering Design and Manufacturing (ARCEDEM), the African Regional Centre for Technology (ARCT) and the United Nations Centre for Science and Technology should assist in facilitating this endeavour. Towards this objective, it is recommended to undertake the following:

(a) Review of industrial plans to determine core or leading branches of industry

(b) Review of existing technology plans, policies and instruments;

(c) Survey of indigenous inventions and innovations and review of the climate for invention and innovation;

(d) Review of existing arrangements and methods for handling imports of technology and the effects of such imports on the domestic production of technology with a view to organizing training programmes for African nationals to enable them learn acquiring imported technology on favourable terms.

(e) Review of the role of universities and other third-level educational institutions in invention and innovation, bearing in mind available natural resources and choice of production lines particularly within the framework of core industrial programmes so as to restructure existing curricula in technology at universities and institutes of technology consistent with local needs.

(f) Promotion of cooperation between universities, research and development institutions and industry in the field of manpower development.

(g) Identification of selected institutions (e.g. railway workshops, posts and telegraph workshops, public works workshops) to play the role of "teaching companies".

(h) Organization of training workshops on aspects of technology policy and planning in collaboration with appropriate co-sponsors.

(i) Establishment of an institutional mechanism responsible for intra-regional and inter-regional co-operation in technology 11/.

23. As far as science is concerned, the problem areas are education and training and research. In order for science to play an important role in African industrial development, it is recommended that the following measures be undertaken by the African States:

(a) Supply of more and better equipment to secondary schools for teaching mathematics and physical science subjects; low-cost equipment can be produced locally that can teach the same principles, and can awaken greatest interest in African students. ECA in collaboration with UNESCO can assist in setting up a network of such centres in Africa to produce low-cost science equipment for use in schools.

(b) Reform of science subjects curricula so that emphasis can be placed more on problems relevant to the African situation:

24. Due to the dearth of available resources and the size of population, many African countries are not able to implement significant research and development projects or to train scientific and technological manpower to meet their needs in various sectors of their national economies. It is, therefore necessary for African countries to collaborate among themselves as well as with other third world countries in tackling these problems, particularly through the creation of multinational institutions, organization of study trips by Africans and other desirable arrangements, as appropriate, to enable participants to learn from the experience of their counterparts in overcoming similar problems.

25. In all efforts to develop scientific and technological capacities, the critial role of product and processes and hence of natural resources for priority and core industries must always be born in mind.

(c) Mobilizing of financial resources for industrial development

26. Compared with earlier periods, the real world situation will, in the near future, if present trends continue, be characterized by financial capital shortage. What all this means, is that expectations that vast supplies of financial resources and factor inputs are available in the North for deployment to the South is open to serious doubt and reinforces the case, not only for the conservation of the resources of the South but, in respect of the Lagos Plan of Action, for their careful mobilization and redeployment in Africa on a sub-regional, regional and inter-regional basis.

27. Account must be taken of the fact that in most African countries, the mobilization of domestic/foreign financial resources has little meaning unless this is regarded as a means of mobilizing the precise factor inputs required. A significant part of the challenge in implementing the African economic and, in particular, industrial core programmes, lies in the fact that the bulk of factor inputs implied have to be purchased using those domestic savings. Hence the constraints imposed by foreign exchange on industrialization of African economies. The rate at which the effects of foreign exchange constraints can be reduced and the significance of mobilizing domestic savings bolstered depends, therefore, on the rate at which relevant indigenous factor inputs are created and domestic raw materials extracted for domestic and intra-regional trade 12/.

11/ ECA, Implementation of the Lagos Plan of Action, E/CN.14/TPCW/II/18/Rev.8, para. 74.

12/ See: A Programme for the Industrial Development Decade for Africa, Chapter II, Paras 308-310.

28. Furthermore, the rate of foreign exchange outflow can be reduced by evolving suitable policies and strategies at the national, multinational and regional levels, for: improving and expanding indigenous consultancy services; the development of indigenous capabilities for evaluating and negotiating projects, for project design, planning and management as well as maintenance and repair practices, etc. corresponding institutions for developing work force and delivering advisory services to indigenous entrepreneurial groups would also reduce the foreign exchange outflow.

29. At the national level, critical assessments will have to be made to align the policies and practices of domestic savings and investment institutions with national priorities in the integrated industrial development plans. Adequate measures should be taken to reduce, where desirable, under-utilization of fixed capital assets, to reduce capital wastage and to improve national capabilities in equipment selection and installation. Such measures should also cover internalization of factor input capacities for domestic provision of core engineering products and services.

30. Also estimates of foreign exchange earnings to be realised from the sale of primary products should be conservative rather than being over optimistic. Short falls in estimated foreign exchange earnings resulting from the usual fluctuation in the world prices of primary commodities may adversely affect the financing of industrial programmes and projects with large foreign exchange component.

31. At the subregional and regional levels, policies should be adopted encouraging widespread arrangements for bulk procurement of machines, spare parts and materials associated with standardization. Other measures could involved use of barter arrangements, particularly with regard to intra-African trade in raw materials and energy.

32. Mobilization and redeployment of financial resources for developing and establishing multinational or major joint industrial projects can be facilitated by establishment of an intra-African investment system for the purpose. The African Industrial Development Fund (AIDF) in particular could become an essential base for mobilization of the required financial resources.

33. In addition, the flow of external finance for industrialization in Africa may be channelled through the mechanism of TCDC framework, and from developed countries through negotiation of joint projects the products of which there is a guaranteed market in the countries concerned. This may suggest a selective repackaging of finance with technology, capital goods, management and training flows through new, non-TNC mechanisms, in particular through agreements with appropriate investors from the advanced countries of the North as well as with firms from more industrialized parts of the Third World 13/. Governments must be aware of such activities of their enterprises and advise them on opportunities and negotiations where necessary. This is particularly true in the case of barter and buy-back arrangements.

34. At UNIDO III, comparative advantages and the international division of labour were often referred to as being among the benefits of cooperation in investment finance between developed and developing countries. Furthermore, such collaboration could serve also as a means for industrial redeployment.14/.

13/ See UNIDO, Industry 2000: New Perspectives (ID/237) 1979, p.19.

14/ See section (e) of this report on: "World industrial restructuring and redeployment," paras 44 to 50.

35. Nevertheless, to meet the external financial requirements, it is required that bilateral and multilateral flows from developed countries to African Countries should be put on an increasingly assured basis. This can be only achieved when the industrialized developed countries and the international financial institutions will accept to adopt the immediate measures in favour of African countries, such measures as a substantial increase in liquidity and reserves for African countries, accelerated flows of concessional and other multilateral flows and restructuring of their debts 15/. The participation of the developing countries in the decision-making could contribute to strengthening the lending capacity of the multilateral development finance institutions.

(d) Energy and industrializatialization, with special emphasis on development and application of energy resources and manufacture of equipment

36. The energy programme for the Decade, particularly for the industrial sector, is approached from the following view points 16/.

(i) energy needs implied by the scale and intensity of industrialization in the Lagos Plan of Action;
(ii) the serious impact of rising costs of imported petroleum;
(iii) measures to ensure availability and supply of all necessary forms of energy to existing and future industries in Africa;
(iv) the contribution of industry to the energy sector in the supply of equipment and machinery for the production, transmission and utilization of fuels and energy.

37. Energy has a special significance by virtue of its nature in facilitating the supply of direct heat, illumination, industrial power and transportation. By and la large, the requirements for energy in Africa is determined mainly by the type of transport in operation.

38. The Lagos Plan of Action underscores the need for energy conservation actions, measures aimed at ensuring availability and supply of energy, lessening dependence on imported fossil fuels, development of renewable sources of energy (solar, wind, geothermal, and organic) and fuller utilization of the hydro-electric potential. While the developed countries at UNIDO III supported the idea of establishing energy policies and programmes by the developing countries, they were opposed to the inclusion of nuclear energy in such activities.

39. Africa is endowed with both renewable and non-renewable forms of energy (including 30% of the world's hydro-electric potential). It needs only to acquire the necessary technological and industrial capacity to exploit this resource. Particular attention and a high priority need to be given, in particular, to the following: the accelerated development — where necessary on a multinational basis — of the regions' considerable hydroelectric power resources in partial substitution for costly imports of petroleum; the development of the region's petroleum and natural gas for fuel and power (as well as for petrochemical industries); more concentrated effort on finding ways of economically exploiting solar energy; adaptation of low-cost technology for the extraction of coal and for its application.

40. With regard to measures to regulate and restrain energy consumption, the provision of cheap and efficient public transportation should be geared up to discourage and render unnecessary the present proliferation of private vehicles. It is also important to ensure that programming and location of industries coincides with programmes for effective utilization of available fuel and energy.

15/ UNCTAD VI - International financial and monetary issues - (TD 275) - Belgrade, June 1983.

16/ See A Programme for the IPDA, Chapter II, paras. 269-281.

41. Measures for alternative supply of energy may include the following:

(i) encouragement of use of wind power as a stand-by source of energy in the rural areas and on the farms;

(ii) development of miniscule hydro-power installations as the source of power for generating electricity on as many locations as possibile.

42. As regards the manufacture of energy equipment it is important to create or involve manufacturing companies or corporations or joint ventures which are actually active in this branch of industry. Energy generating and ter smission equipment include not only electrical equipment but also non-electric prime movers, such as the manufacture of small diesel engines. Since the manufacture of large generating sets requires larger scale and more specialized facilities than are likely to be economic even in Africa as a whole during the next 20 years, the principal items for which African countries can initiate action are switchgear, transformers, and transmission and distribution equipment. The potential gain from cooperation and specialization is considerable. Exclusive focus on national markets in the African region has already stimulated small-scale production of a number of items of transmission and distribution equipment. Considerable opportunities await to be exploited for specialization among countries and the exchange of products and components which run into many hundreds.

43. Even on the basis of existing capacities, a substantial intra-regional trade could be developed in products that are mostly imported from outside. With complementarity agreements between countries, reinforced by uni-directional trade preferences, there are also a number of new products, including various types of electrical motors, low tension switchgears, fuse distribution boards, motor control gear, and distribution transformers, that would be possible to produce economically for an all-African market. Since the number of actual and potential producers in the region is small, no serious difficulties should be encountered in securing national representation in regional consultation and negotiation meetings to work out an agreement concerned with developing this branch of industry.

(e) World industrial restructuring and redeployment

44. The developed market economy countries represented at UNIDO III saw redeployment simply as the movement of products, equipment, know-how, technology and finance among countries and, as such, redeployment was already in operation and could best be implemented through open market forces and not through legislation and Government policies. To the developing countries, redeployment meant rather postponing investment decisions in the advanced countries where production costs in particular sectors were already relatively high compared to costs in the developing countries; and facilitating the production of similar or better products cheaply in developing countries, and being assured of access to world markets including markets of the developed countries in particular.

45. Proposals for industrial restructuring and redeployment must be considered within the context of establishing an industrial sector which is structurally integrated and which fosters linkages with other domestic sectors and also promotes features that can propel industry itself as well as other sectors towards expansion and self-sustainment. Unless and until this picture is accepted, the proposals being urged on the region to encourage the redeployment of industrial capacity from developed to developing countries, without any specifications of what is actually to be redeployed, are likely to make the African industrial structures much worse than they are already.

46. The question of redeployment of world industrial production capacity in favour of the Third World countries constitutes one of the most fundamental of all changes in international economic relations called for in a new international order. The question is not new. Its formulation, from the point of view of developed countries, is the degree and feasibility (economic, social and political) of making internal domestic adjustments to accomodate imports of processed agricultural products and manufactures from the Third World.

47. As regards what should be redeployed, the developing countries position at UNIDO III was that they should have more opportunities for upstream processing directed towards global restructuring and redistribution of industrial capacities to produce certain intermediate and capital goods, parts and components apart from certain final goods. From the point of view of the Third World countries, a reallocation to them of those industries in which the developed countries are now at a comparative disadvantage while the Third World contries are at a comparative advantage namely: shoes, textiles, steel and electronics assembly 17/. The argument underlying this approach is, of course, that the industrially advanced countries have comparative advantage in high technology industries, informatics, aeronautics, space research, and the like, and they should concentrate their efforts there as their general focus.

48. As regards the means for redeployment, the developing countries argued at UNIDO III that the advanced market economy countries themselves were responsible for hindering the smooth operation of the principle of comparative advantage and market forces, by their protectionist measures including tariff and non-tariff measures. Moreover, there was room for public and nprivate sectors as well as joint ventures, guided by deliberate Government policies, to play a role while the international organizations investigated those areas where comparative advantages had shifted in favour of the developing countries.

49. The reallocation of world industrial capacity to the Third World implies that corresponding attention must be accorded also to high level manpower, technology and technical know-how and managerial and marketing capability. It is an inherent assumption of this call for industrial capacity reallocation that in respect of those industries allocated to the Third World, the countries of the Third World will be responsible for the production and distribution of the products of such industries for the use of both the advanced industrial and the developing countries. The feasibility and desirability of this assumption, in terms of equipment and their installation, technical management and marketing capability as well as transportation, need to be critically studied since, at all events, no country would want the

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17/ See, Africa and the New International Economic Order: a Re-assessment, (mimeo), op. cit., p.17.

industries to be reallocated without technical, managerial and marketing capabilities. A reallocation of industries from developed countries on the principle of lock stock and barrel will aggravate rather than ameliorate the development problems of the Third World.

50. However, over and above this, what is of immediate importance in Africa whose existing share in total world industrial output is a mere 1%, is installation and management of those industries which are central to the production process, in that they produce inputs into other sectors of the economy as well as for their own use, i.e. basic metal and engineering industries. In this connexion, Africa has adequate resources for their installation and management, particularly on a collective self-reliant basis. The technological design, manpower, management and marketing capability implications of this should increasingly engage the attention of the African countries.

(f) Policies and measures for domestic industrial processing of raw materials in developing countries

51. The proposals for domestic industrial processing of raw materials would seem, at first sight, to imply a structure of international trade in which the large number of countries constituting the Third World would continue to export increasing quantities of the same products (as determined by the import demand of the advanced countries), whether processed or unprocessed to the relatively small number of industrialized countries.

52. Secondly, the accrual of substantial gains to the developing economies as a result of increased local processing of agricultural products for export would depend largely on the extent to which local processing industries depend on internal factor inputs. This is a matter of particular importance to the least developed countries in the African region 18/.

53. It is implicit in the proposition that such manufactures should be directed, in the first instances, to advanced industrial countries since the object is to earn foreign exchange to finance imports of skills, technology, capital goods and services which the advanced countries can supply. When it is taken into account that the economies of advanced countries already find it difficult to accomodate imports of manufactures from such sources as Japan, Hong Kong and India, which account for only a small share of the imports of manufactures into the developed countries, the difficulties of applying this prescription to the whole or most of the Third World become obvious. From the developed countris' point of view as expressed at UNIDO III, it was hard to believe that there was increasing protectionism in advanced countries against manufactured products from developing to developed countries. They opposed the idea of establishing a target for exports of manufactured products from developing to developed countries.

54. What is often overlooked and which deserves early exploitation is the fact that the developing countries themselves, as a group, constitute a much larger and much faster growing market for raw materials and the intermediate goods derived therefrom. In view of the foregoing, it is necessary to widen and deepen knowledge of the natural resource base and the raw materials that might be selected for industrial processing. Accordingly, action in this field should, inter alia, include:

(a) national measures for compilation of all available information on natural resources and for the establishment of a central unit for this purpose;

18/ ECO/90/Rev.3, para 43.

(b) evaluation of mineral resources development activities in progress in each country, including also resources map series, so that each country may decide on how these activities could be restructured to correspond to the Lagos Plan, e.g. which projects should remain national and which to expand into multinational projects;

(c) evaluation of the extent to which existing natural resources, including mineral, agricultural and forest-based resources, constitute raw material inputs into the development of core industries; and of those resources which could be processed for domestic consumption or export only as a matter of complementing and supporting the core industries but not fundamental development strategy;

(d) African countries should adopt active and objective policy measures for establishment and exploiting their national mineral resource base through the instrument of national or multinational finance companies established and owned by African countries themselves specifically for this purpose.

(g) Industrial policies and measures to achieve rural development and self-sufficiency in food supplies in developing countries

55. In the majority of African countries food production has increased very slowly. Natural disasters and particularly the recent drought, have seriously affected crop and livestock production in various countries. Also urbanization, arising from rural exodus, has lowered the number of able-bodied producers, turning them into consumers with limited alternative opportunities for employment and income.

56. Some of the major constraints to increasing food production and productivity were identified at the World Food Conference as being inadequate socio-economic structures, insufficient investment funds, pausity of trained manpower who can apply their skills directly to production, etc., weak administrative capacity on the part of Governments, inadequate rural infrastructures including agricultural extension and transport and other distributing facilities, absence of family welfare services, and unfavourable terms of trade between the urban and rural areas.

57. Industrial programmes for rural development will require much more attention than is customarily given to small-scale industries which include cottage and handicraft activities. Critical points will include types of resource-based rural indsutries; their raw material base; linkage with major industries; equipment supply, maintenance and repair; design and quality control; marketing and rural industrial e extension. It will clearly be necessary to strengthen considerably the capacity of Governments to deal with programmes concerning rural industrialization and small-scale urban industries. It is necessary here to refer also to the concept of rural industries based on subcontracting of components production. Greater familiarization with subcontracting in practice will reveal the entrepreneurial requirements in organizing production and timely delivery.

58. As a basic principle, a rapid expansion of integrated small-scale village level agro-allied processing on a massive scale is conducive to improved food

preservation and increased production. In order to reinforce the measures for self-sustaining integrated rural development, the national engineering core industries programmes should be so designed as to produce inputs for food and agriculture, including: (i) hand tools and manually-operated equipment; (ii) animal-drawn equipment; (iii) tractor-drawn equipment; (iv) equipment for irrigation, water supply and for tapping underground water resources in drought prone areas; and (v) equipment for food processing, storage, transport and packaging. In certain cases, there will be need for multinational cooperation in production and trade of given products. Industrial policies should also be taken at national and multinational level aimed at better exploitation of Africa's water ways, rivers and lake basins for agricultural development, including fish and resources of the sea.

59. If self-reliance and self-sustaining farming are to be achieved, farm policy should aim at improving the production, marketing and distribution of technical inputs into farming viz. improved seeds, fertilizers and pesticides, agricultural machinery, implements and tools including transport facilities, associated with expanded credit facilities, training in the efficient use of such inputs and promotion. The extension services may need radical adjustments as well. Arrangements guaranteeing that what is produced will have a market outlet is also crucial.

60. The immediate interaction between industry, agriculture and rural transformation is likely to be expressed principally through the expansion of rural infrastructure. In this context, the development of rural infrastructure is conceived as performing four critical roles. The first is that of expanding employment opportunities in the construction of rural roads network, telecommunications, housing, power, storage, the improvement of rural townships, water works and irrigation canals; in the provision of health and education services; rural industries and so forth. The second has to do with the impact on agriculture, especially the impact of demand on food supply engendered by this increased employment. The third role is that of opening up the market for industrial products and therefore for industrial expansion and orientation. The fourth role of rural infrastructural development is its contribution to the physical integration of the national socio-economic system.

61. The pursuit of a strategy of integrated rural development will require a reconsideration of the structure and functions of a substantial part of government. In particular, current studies reveal problems of coordination of policies at the centre, of integration of programmes aimed at rural areas and of communication between the centre and those areas. The fundamental requirements of industrial policies, strategies and programmes for rural transformation must also identify particular target groups, their needs, problems and potential and ensure that resources allocated to them actually reach them. Studies also suggest the need for reallocation of authority and resources so as to make local participation in decision-making meaningful.

(h) The Least Developed Countries: Implementation of the Substantial New Programme of Action

62. In general, the problems of the LDCs differ from those of the other developing countries only in degree but not in kind. In implementing their substantial New Programme of Action for the 1980s, they will, therefore, need more access to cheaper financing and will have to intensify their efforts within the TCDC framework and for achieving any preferential arrangements in the field of trade. Most of the participating countries at UNIDO III agreed on the need for special assistance to the least developed countries (LDCs).

63. Any attempt to apply the concepts of self-reliance and dynamic growth to least developed countries must begin by a consideration of the characteristics which distinguish them from other developing countries and of the broad factors which cause them to lag behind the others in socio-economic change and performance. In general, the constraining factors to which the LDCs are subject, are reflected, to varrying degrees, in somewhat rudimentary administrative machinery, in markedly poorer infrastructure than other developing countries and in a minimum amount of investment in manpower development and research.

64. At the national level, the LDCs must focus primarily on transforming internal socio-economic structures, ensuring a higher local content of value-added in production; adopting an integrated and multisectoral approach to planned growth, and, in particular,, fostering the complementarity between agriculture and industry, concentrating scrupulously to developing core industries and providing improved and expanded training opportunities more closely geared than in the past to need for core skilled manpower. Priority should also be given to agrarian reform, increased food production, institution building and sovereignty over natural resources in the practical sense.

65. It is expected that the industrial development policy in the LDC countries should put stress immediately on selected range of policies related to investment, government finance, manufacturing activities, price and exchange rate, in order to improve the areas such as effective mobilization of domestic and external resources for investment, rehabilitation of existing industries, strengthen the production capabilities of the agricultural and industrial sectors.

66. However, the high dependence of the LDCs countries on external resources requirements to finance their medium-term investment programmes, has significant repercussions on the implementation of the substantial New Programme of Action (SNPA). It has been noted that there has not been any substantial increase in international resource flow to African LDC in 1981-1982 and prospects during the 1980s are rather bleak due to the drastic reduction in official development assistance from bilateral and multilateral sources, particularly the OECD Countries.

67. From the estimates made by the UNCTAD Secretariat, while the financial assistance required by the LDCs to achieve the growth rate of 7.2 per cent envisaged in the SNPA will be $14.1 billion in 1985, commitments made by the various donors in Paris and elsewhere indicate that the flow of assistance to the LDCs in 1985 is expected to be only $8.1 billion, leaving a gap of $6 billion 19/. In order to

19/ Report of the Second Meeting of the Inter-Governmental Committee of Experts on African Least Developed Countries. Paras 27-39, Addis Ababa, April 1983.

avoid such trends, it is expected that the donor countries and institutions will have to implement their commitments with respect to aid flows expecially the target of 0.15 per cent of GNP of donor countries for assistance to least developed countries and the doubling of resource flows to least developed countries by 1985.

(i) Strengthening economic cooperation among developing countries

68. Self-sustained and self-reliant industrialization in Africa is likely to be understood better by other developing regions in the short term than by the developed countries which have always opposed the establishment of both basic and capital goods industries in the region. However, this means action to remove obstacles. The most crucial obstacles or problems to strengthening the South-South cooperation are of four categories.

69. First of all, there is lack of confidence in each other's abilities and skills and capacity to deliver goods and services of a quality comparable, let alone equal, to those of the traditional suppliers. The tragedy is that even when the competitive quality and terms are obtained, there is always a temptation to buy outside the Third World.

70 In addition to this lack of self-confidence, one of the crucial problems stems from the feeling that the benefits deriving from cooperation are not equally shared and, worse, still, that the traditional scenario whereby developing countries supply the developed world with commodities and import therefrom manufactured products, including capital goods, is being reproduced, deliberately or not, in the intra-Third World trade. If such a situation were allowed to continue, the entire fabric of South-South cooperation would be seriously damaged to the extent that less-than-optimum advantage would be taken of the Africa's real potential.

71. Thirdly, one striking fact in all the tasks which the Third World seem to have set upon themselves, there is an absolute lack of priorities. Unless priorities are set pretty soon, it will be most difficult to make any progress.

72. Lastly, since each developing region has been trying to evolve various cooperative schemes of its own, these schemes should not be ignored or by-passed. There is need, indeed, to find formulae, which need not necessarily be the same in each case, to make it possible for regional and inter-regional cooperative efforts to reinforce each other instead of being in opposition to each other.

73. Notwithstanding the indisputable achievements of the Group of 77 so far, one may well consider that the Third World have not truly started to use their bargaining strength in negotiating with the developed countries. Indeed, so far, they have not even started to "negotiate" to the extent that the very concept of negotiations implies, inter-alia, the coming together across the table of parties or partners, of not necessarily equal strength, but certainly of parties with strong will to bring to bear on the negotiations whatever strength at their disposal that may be required to ensure the attainment of their objectives.

74. Whatever the Third World may have been doing so far, whether one calls it petitioning or lobbying, definitely does not bear any likeness to what, under other circumstances, have come to be identified as negotiations. Many reasons account for this. The Third World countries have generally failed to relate the requests they have been putting forward in the course of "negotiations" to the overall development strategies of the South at national, regional and inter-regional levels. That is, a wide gap exists between their overall national or regional

strategies on the one hand and the particular policies their negotiators seem to be advocating in such fora as UNCTAD, GATT, UNIDO and the like, on the other.

75. Furthermore, agreement is needed on some fundamental principles to be followed by the Third World countries in their economic and technical cooperation. First and foremost, all Third World countries must accept that the cardinal principle of South-South cooperation must be based on the full recognition of the principle that each country is both a donor and a recipient, avoiding developing a class of donor countries and a group of recipient countries within the Third World. Such class distinctions will simply extend the present dependence and exploitative arrangements between the North and the South to South-South co-operation. This is totally unacceptable to Africa.

76. Secondly, for South-South cooperation to succeed, mutually acceptable guidelines have to be agreed upon. The following are suggested 20/:

(i) a proper understanding of the challenge posed by the nature of the problems which the Third World countries commonly face;

(ii) a clear perception of the opportunities which exist or which may be created for the solution of such problems through economic and technical cooperation among the developing countries themselves;

(iii) a realistic recognition of the contribution to the solution of such problems through economic and technical cooperation among developing countries; and

(iv) the formulation of a workable programme of action that will enable the countries to translate their concepts and perceptions into the nitty-gritty of implementable projects.

77. Following the acceptance of the guidelines, a most urgent task is to agree on priority objectives in the implementation of the various programmes on ECDC that have been adopted at Colombo, Manilla, Mexico and Arusha. There is need to determine exactly what the developing countries like to and can collectively accomplish over the short, medium and longterm. Their present so-called Action Plans are neither well articulated consistent Plans, nor do they always lead to action. They tend to put too much in them without any agreed priority of priorities. They have no time reference, are too broad and do not say who does what.

78. Therefore, as decided at the Fifth Ministerial Meeting of the Group of 77 21/, it is necessary and urgent to implement the various concrete priority programmes on ECDC, such as the establishment of the the global system of Trade Preference among developing countries, the co-operation between the State Trading Organizations and the establishment of multinational marketing enterprises among developing countries.

20/ Africa and the South: forging truly interdependent economic and technicalities (mimeo) 1980 p. 38.

21/ Report of the Fifth Ministerial Meeting of the Group of 77/MM(V)/13 - page 67, Buenos Aires, March-April, 1983.

79. Given the varied experience acquired by African, Asian, Arab and Latin American countries, and regarding the potential areas of industrial co-operation, special attention should be paid to the strengthening of multinational industrial enterprises, to the promotion of technological capabilities, dissemination of industrial technology, development of technical and vocational training (granting of scholarships and organization of training courses) exchange of specialists 22/ etc..

80. Specific action could consist of an exchange of information on experiences on all stages of feasibility studies, contract models, promotion of industrial consultancy services available in developing countries for the evaluation, supervision and management of projects, including the provision of technologies developed or adapted in these countries, joint negotiations for acquisition of selected technologies suitable for specific projects.

81. The Third World countries must select two or three programmes and concentrate on them until a breakthrough is achieved. In the field of industry, the selection could focus on development of their raw materials which both African and other developing countries need, particularly for food industries, building materials and capital goods industries. The selection could also be based on the Colombo Conference decision to establish a Third World Bank among other things. The Third World must ensure that the priorities selected are in areas where meaningful impact on the development process can be made as soon as possible.

82. It is suggested to consider organizing an inter-regional meeting, in which experts from selected organizations or institutions from the four developing regions, regional organizations, such as regional industrial development institutions, development banks, financial institutions, etc.. would participate with a view to devising practical ways of promoting inter-regional co-operation among developing countries.

83. For such arrangements to be effective, there must be agents of production and distribution which are able and willing to exploit the opportunities which the arrangements provide. In terms of increasing self-reliance, these must now more and more be interpreted to mean indigenous public and private enterprises; and this is a matter which must be given close and early attention, since it is such enterpreneurial agents who determine whether cooperation is a success or a failure. The position of the developing countries at UNIDO III was that such South-South cooperation would also enhance North-South cooperation by providing expanded market and investment opportunities for developed countries as well, provided the latter were prepared to make appropriate adjustments in their attitudes, policies and terms of cooperation.

84. There is also an urgent need for the setting up of a proper institutional framework for monitoring progress in the implementation of decisions and for ensuring that necessary follow-up actions are taken. Neither in the non-aligned movement nor in the Group of 77 is there any permanent machinery or secretariat to carry out the essential preparatory work of analysis, planning, coordination,

22/ Report of the Fourth Meeting of the Technical Preparatory Committee of the Whole -(E/ECA/TPCW.4/L.3)- see resolution 9(IV) - Addis Ababa, April 1983.

monitoring and follow-up. Such a secretariat is necessary if the Third World is to achieve meaningful economic and technical links and at the same time improve its negotiating power with the North - a North that is exceedingly organized.

85. An appropriate institutional mechanism, established and financed by the Third World and controlled by it, responsible only to the Head of State and Governments concerned, would facilitate the services of coordination and monitoring. Under the prevailing circumstances, the Ministers and officials review and monitor and map out new areas of cooperation on an ad hoc basis, and often hastily, on the occasions of or in conjunction with say UNCTAD, GATT or UNIDO sessions. They should now do this under an appropriate political intergovernmental Third World institutional framework.

86. The competent international bodies such as the Food and Agriculture Organization of the United Nations, the General Agreement of Tariffs and Trade, the International Trade Centre UNCTAD/GATT, the United Nations Development Programme, the United Nations Industrial Development Organisation, the competent regional and subregional organizations of developing countries, as appropriate and the regional Commissions, as well as the developed countries, are required to support the full implementation of economic co-operation programmes among developing countries 23/.

23/ Report of the Fifth Ministerial Meeing of the Group of 77 - page 67.